

Notice of Allowability

Application No.

10/015,447

Applicant(s)

LIU, RUEY-SHAN

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to 5/29/03.
2. ☐ The allowed claim(s) is/are 1-6.
3. ☒ The drawings filed on 12 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

DETAILED ACTION

Allowable Subject Matter

Claims 1-6 are allowed.

Reason for Allowability

The following is an examiner's statement of reasons for allowance: the primary reason for the allowance is the including, in combination with other limitations recited in the claims, the limitations of a weight release mechanism for an underwater object that facilitates the Retrieval of the underwater object, wherein the underwater object is self-buoyant and Contains a heavy block groove, the groove has a bottom surface with a through-hole thereon, the mechanism comprising of a heavy block that fits inside the heavy block groove, wherein the heavy block has a weight capable of overcoming the buoyancy force of the underwater object so that the heavy block and the underwater object will sink to the bottom when dropped into a pool of water, the heavy block has a flat surface and the flat surface includes a latching groove and one or more spring grooves, the latching groove further includes an opening, and the flat surface presses against the bottom surface of the heavy block when the heavy block is engaged inside the heavy block groove; a spring inside the spring groove, wherein the spring has a free length greater than the depth of the spring groove so that the spring are compressed between the bottom of the spring groove and the bottom surface of the heavy block groove when the heavy block is engaged inside the heavy block groove; a bearing within the underwater object; a rotary spindle tightly inserted into the through-hole and fixed relative to the a bearing within the underwater object; a rotary spindle tightly inserted into the through-hole and fixed relative to the b in so that the rotary spindle rotates inside the through-hole, wherein the spindle has a first end and a second end, the first end is within the heavy block groove and the second end is in the interior of the underwater object, the first end further includes an engaging block, sectional profile of the engaging block at the first terminal is identical to the profile of the opening in the latching groove so that the first end of the rotary axle inserts into the latching groove via the opening and the engaging block rotates inside the latching groove so that the engaging block hooks inside the latching groove with the heavy

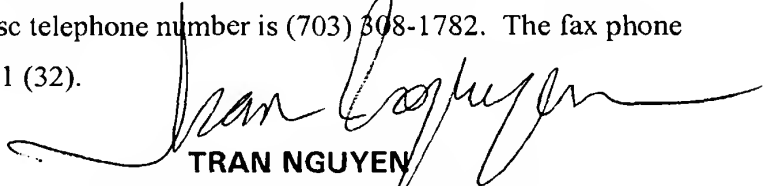
block fixed inside the heavy block groove; and an electric motor inside the underwater object engaged with the second end of the rotary spindle for driving the spindle.

Comparing to the prior-art of the record, none of the prior art references of the record, either stand alone or in combination, has taught or suggest the above-mentioned features in combination with other limitations recited in the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran Nguyen whose telephone number is (703) 308-1639.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-1782. The fax phone number for this Group is (703) 305-3431 (32).


TRAN NGUYEN
PRIMARY PATENT EXAMINER
TC-2800